

Indiana Multimodal Freight & Mobility Plan

presented to
Indiana Statewide MPO Conference

presented by
Cambridge Systematics, Inc.
on behalf of
The Indiana Department of Transportation

October 10, 2007

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Agenda

- **The Indiana Multimodal Freight & Mobility Study - Goals**
- **National Freight Trends**
- **Indiana Freight Trends**
- **Scope of the Study**
- **Where We are in the Process**
- **Next Steps**

The Indiana Multimodal Freight & Mobility Study Goals

- **To provide a framework to guide future decisions regarding freight transportation investments**
- **To develop systemwide objectives for dealing with increasing freight mobility demands**
- **To ensure the efficient use of resources to support these objectives**
- **To support INDOT's LRTP, addressing the impacts of freight mobility on the entire transportation system**
- **To plan for and implement a coordinated multimodal freight network**

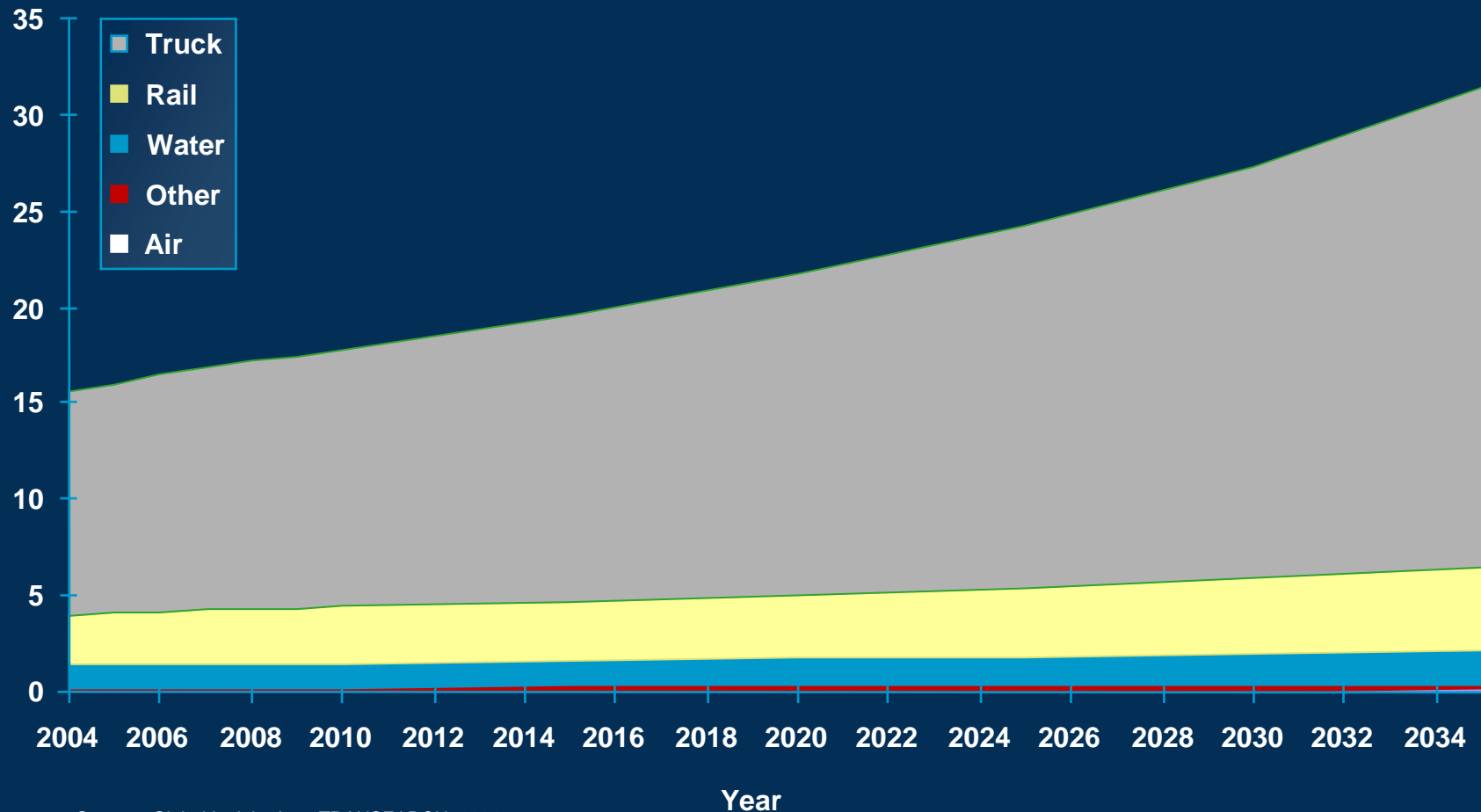
National Freight Transportation Background

- Demand for freight services is at an all-time high
- Trucks are competing with passenger vehicles for capacity on our major highways
- Railroads are operating near capacity, with significant investment needed to maintain current market share in the future
- Marine ports and airports are operating near capacity
- The result is increased congestion and delay which affects both passenger transportation and our nation's commerce

Where is freight demand going?

Freight Tonnage Forecast by Mode, 2004-2035

Net Freight Tons (in Billions)

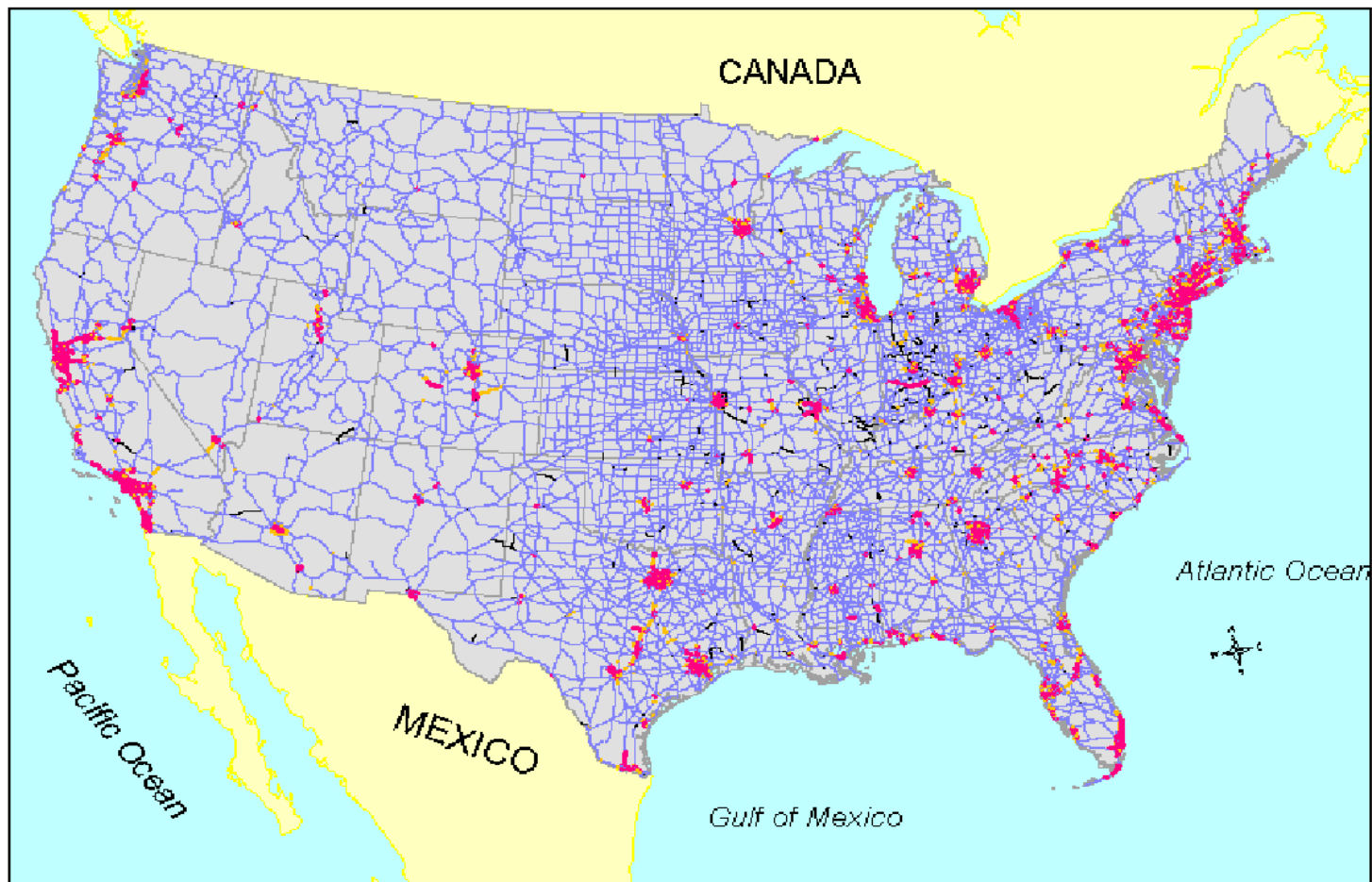


Source: Global Insight, Inc., TRANSEARCH, 2004

What are the national issues and opportunities?

- **Lack of coordinated public-private action on freight policies, programs, funding and financing**
- **Insufficient public sector knowledge of supply chain management; lack of focus on operations**
- **Difficult to obtain proprietary data on freight transportation necessary to make informed decisions**
- **Increasing costs and declining reliability caused by bottlenecks at international trade gateways and along major trade corridors**

Year 2020 Traffic Congestion Without Trucks



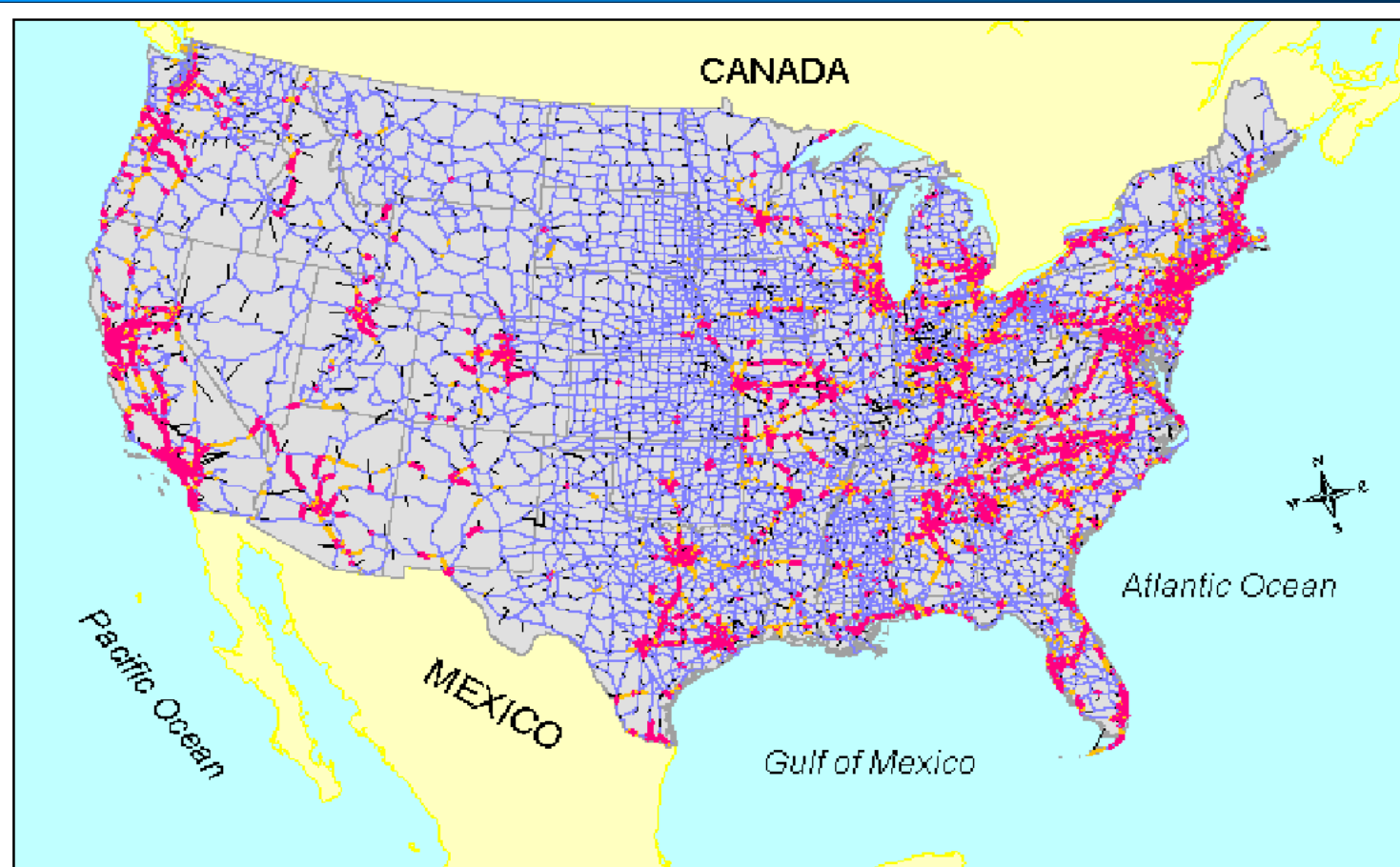
US Department of Transportation
Federal Highway Administration
Office of Freight Management and Operation

VCR 2020 (No Truck)



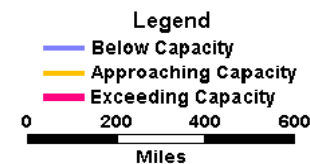
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Year 2020 Traffic Congestion With Trucks



US Department of Transportation
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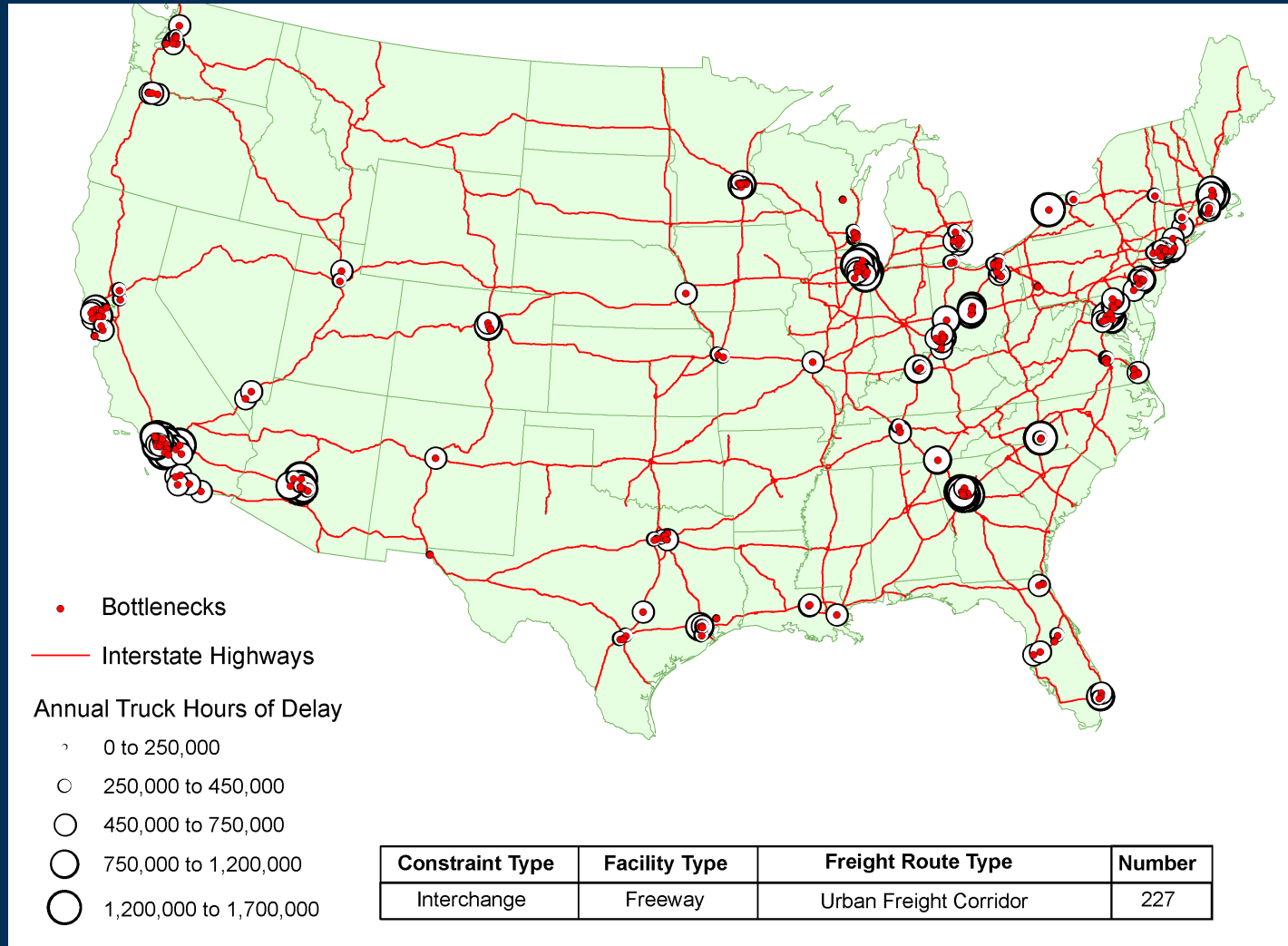
V/C Ratio Distribution 2020



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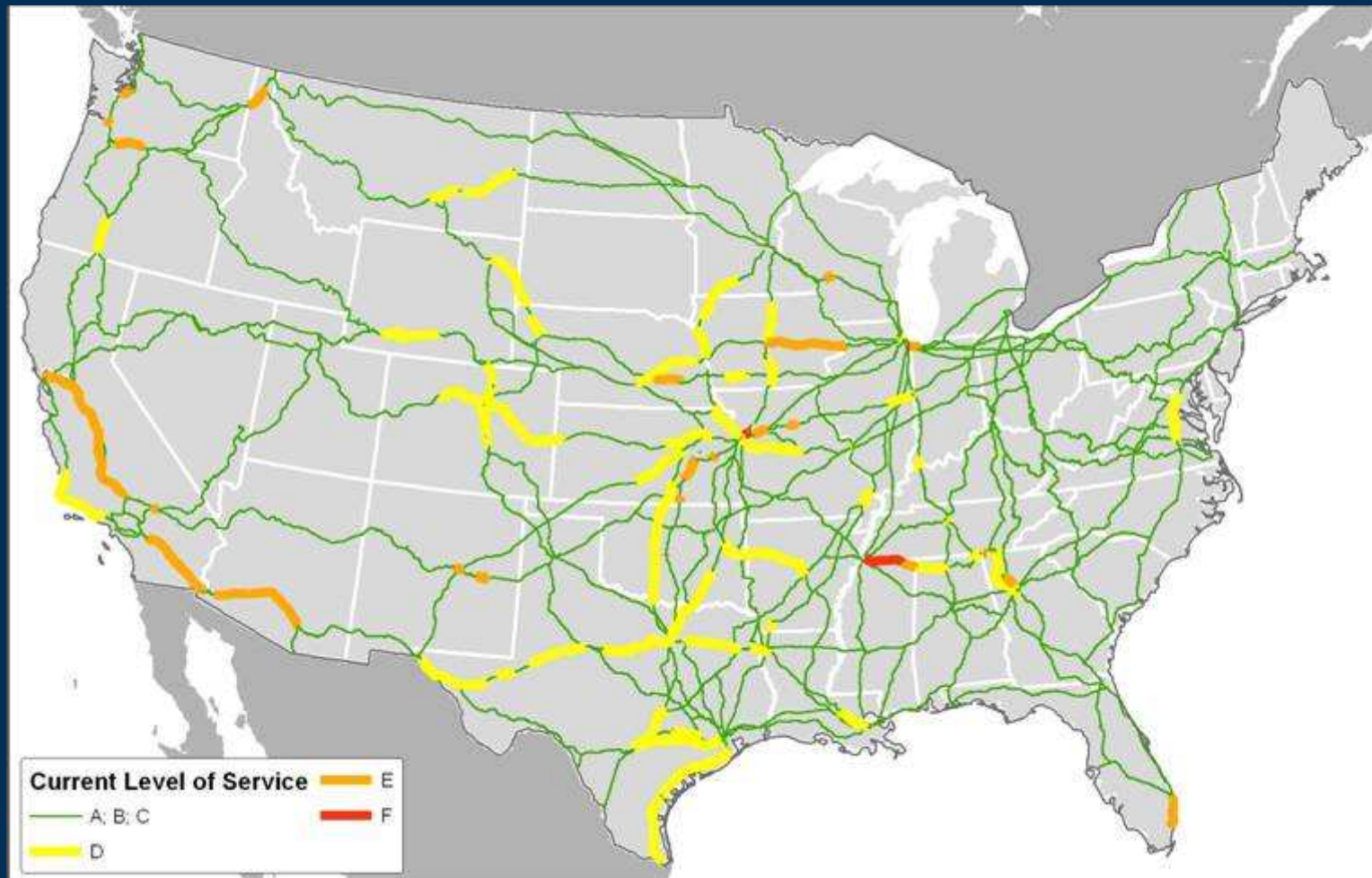
Major Freight-Truck Bottlenecks, 2004

Highway bottlenecks caused 240 million hours of delay and cost truckers \$8 billion in lost time in 2004; urban Interstate interchange bottlenecks accounted for most of the delay—about 124 million hours of delay at a cost to truckers of \$4 billion



Current Rail Volume/Capacity Ratios

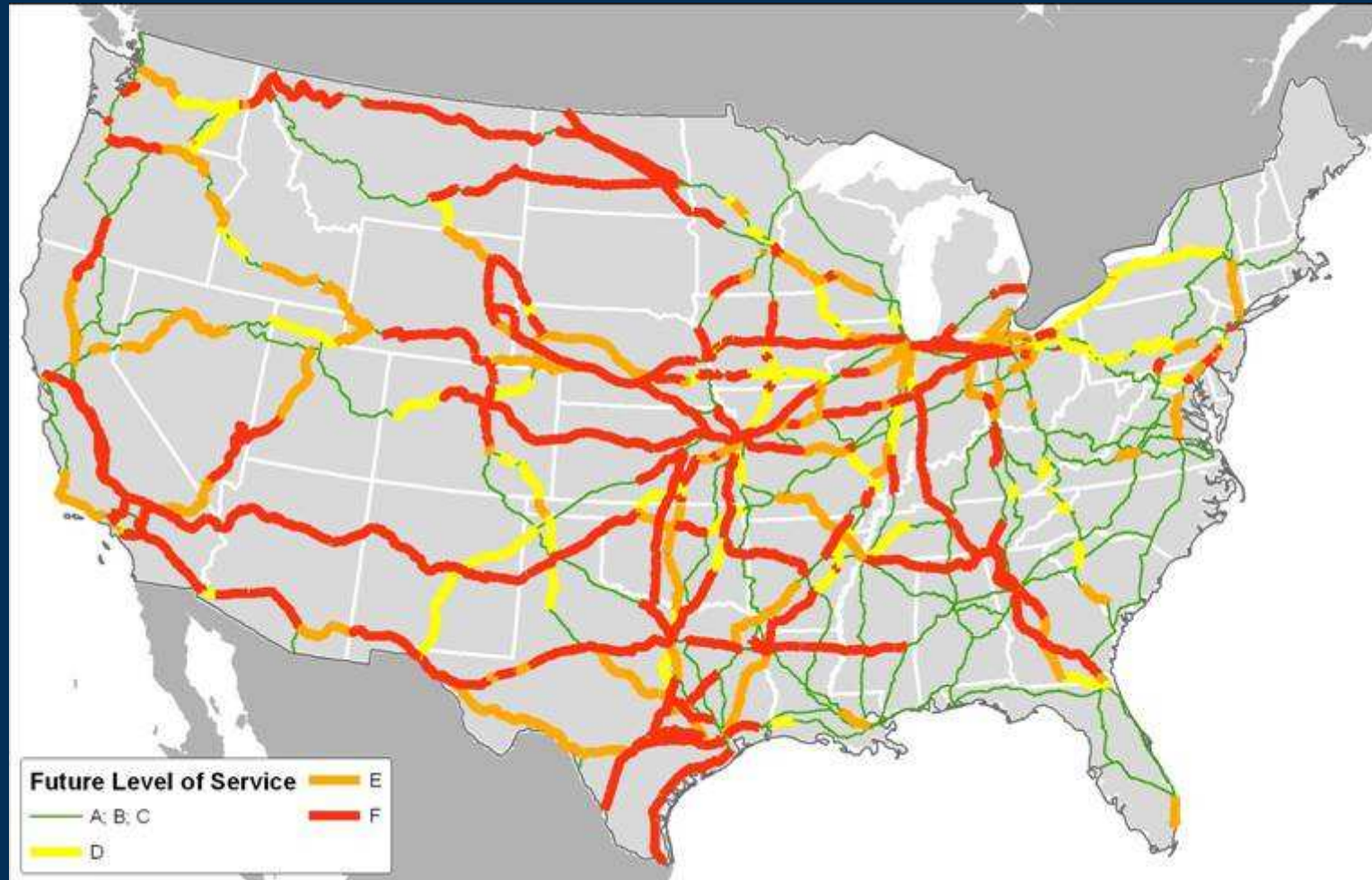
Rail system is operating near capacity in many areas, with investment needed to absorb new growth



Source: Association of American Railroads "National Rail Freight Infrastructure Capacity and Investment Study" prepared by Cambridge Systematics, 2007

Future Rail Volume/Capacity Ratios (2035)

Thirty percent of system operating at LOS F. \$148 billion is needed to expand capacity for freight rail to maintain current market share.



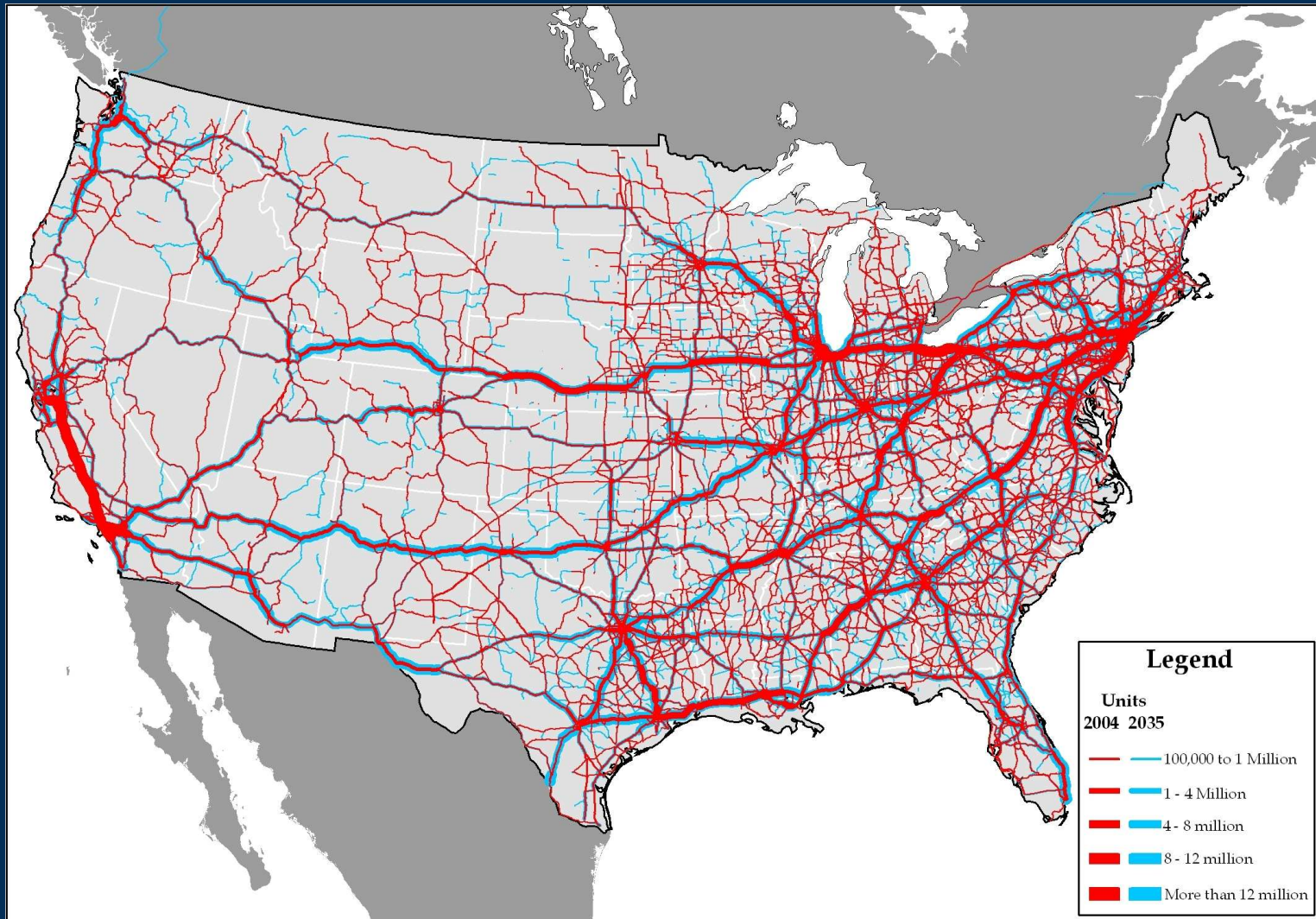
Source: Association of American Railroads "National Rail Freight Infrastructure Capacity and Investment Study" prepared by Cambridge Systematics, 2007

What Does This Mean for Indiana?

- **Increased delays and costs associated with freight and passenger transportation**
- **Increased opportunity for economic growth**
 - **+ Strategic Location**
 - **+ Proximity to Large Consumer Markets**
 - **+ Excellent Transportation Network (including all modes)**

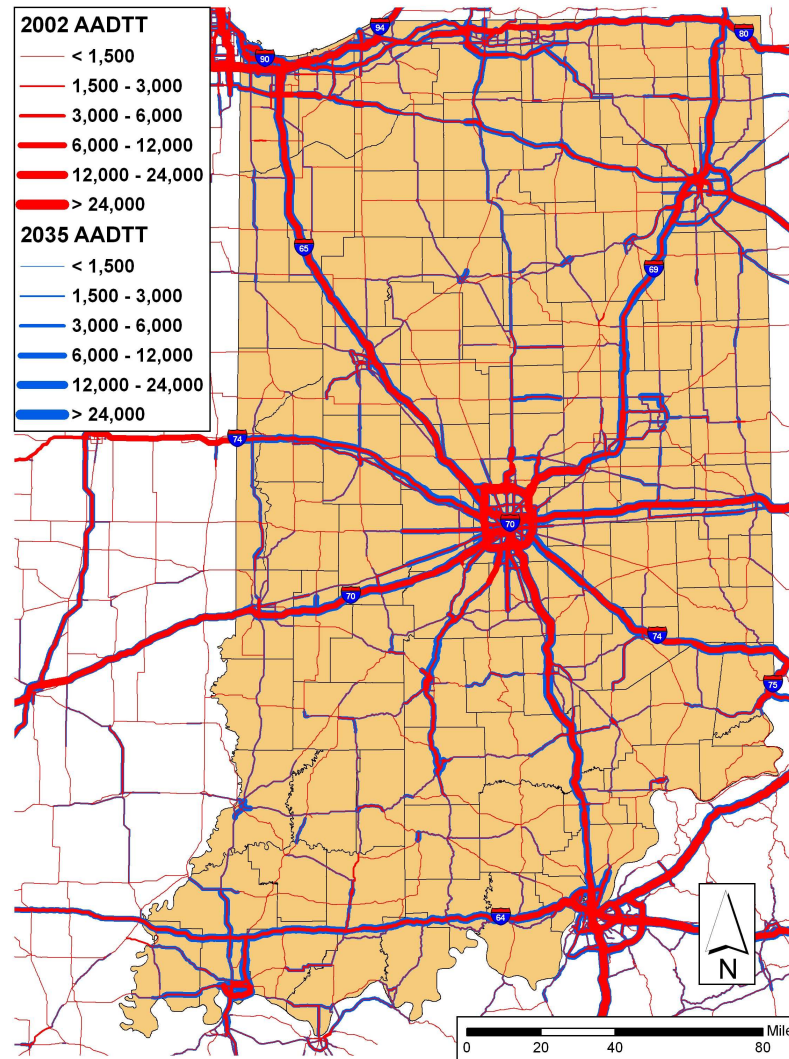
Truck Traffic Current and Future

Indiana is a major origin & destination for freight, and a major gateway to nearby population centers



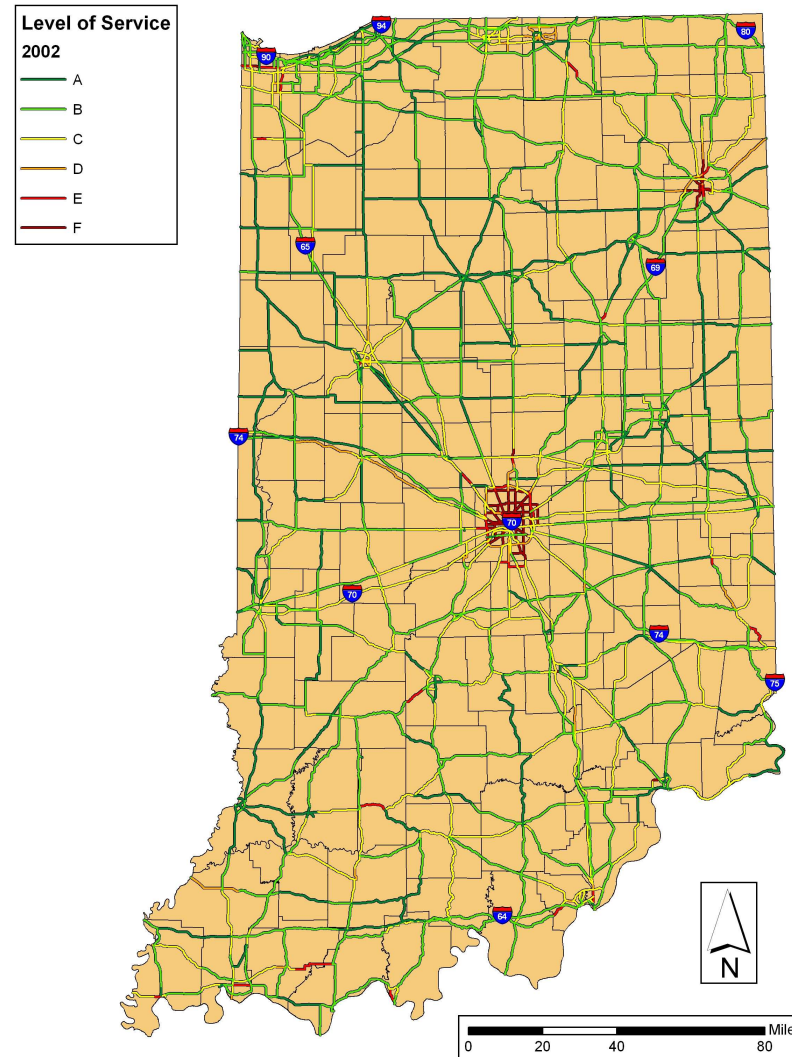
State of Indiana

Existing and Future Truck Volumes



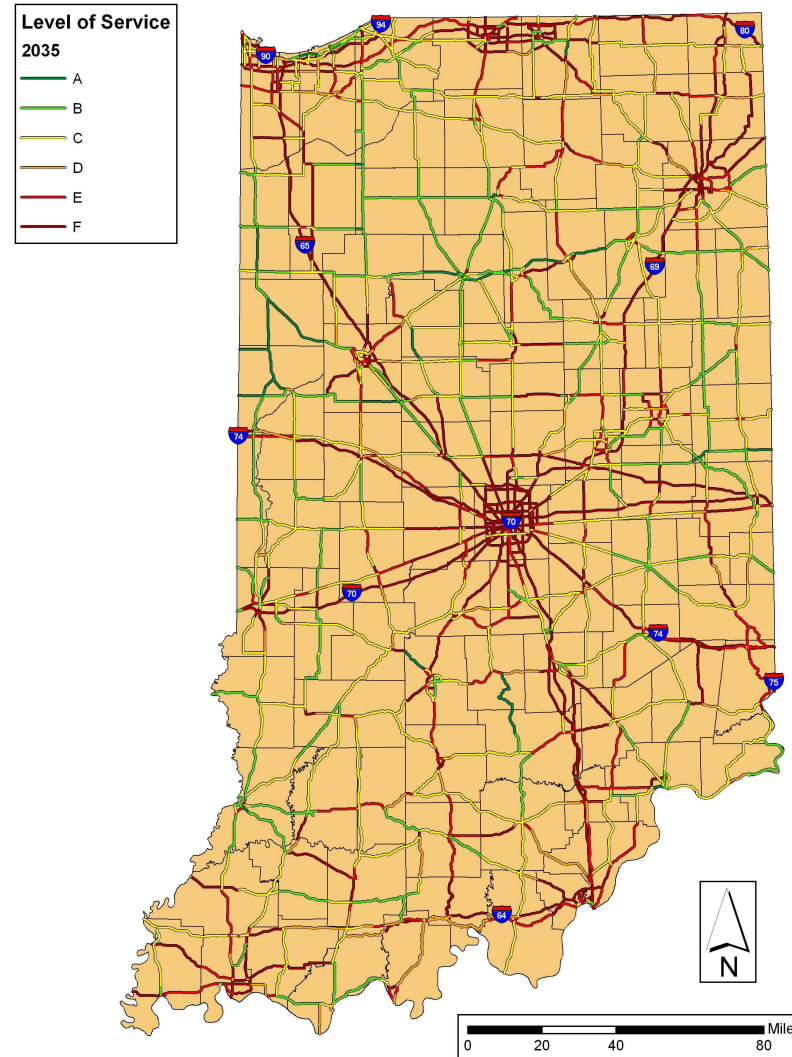
Indiana's Highway Network

2002 Levels of Service – Congestion in Urban Areas

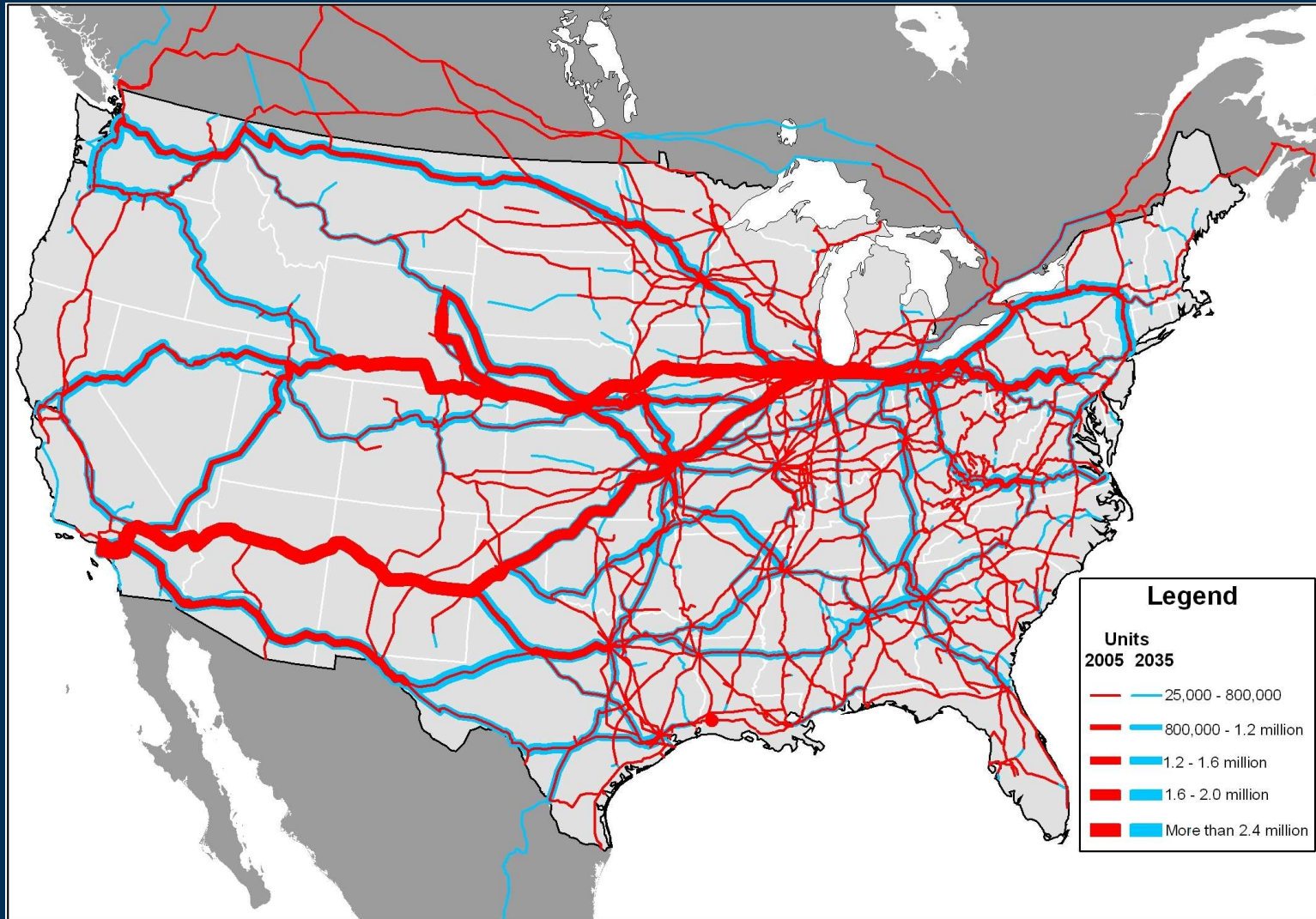


Indiana's Highway Network

2035 Levels of Service – Congestion in Urban Areas and on Major Corridors

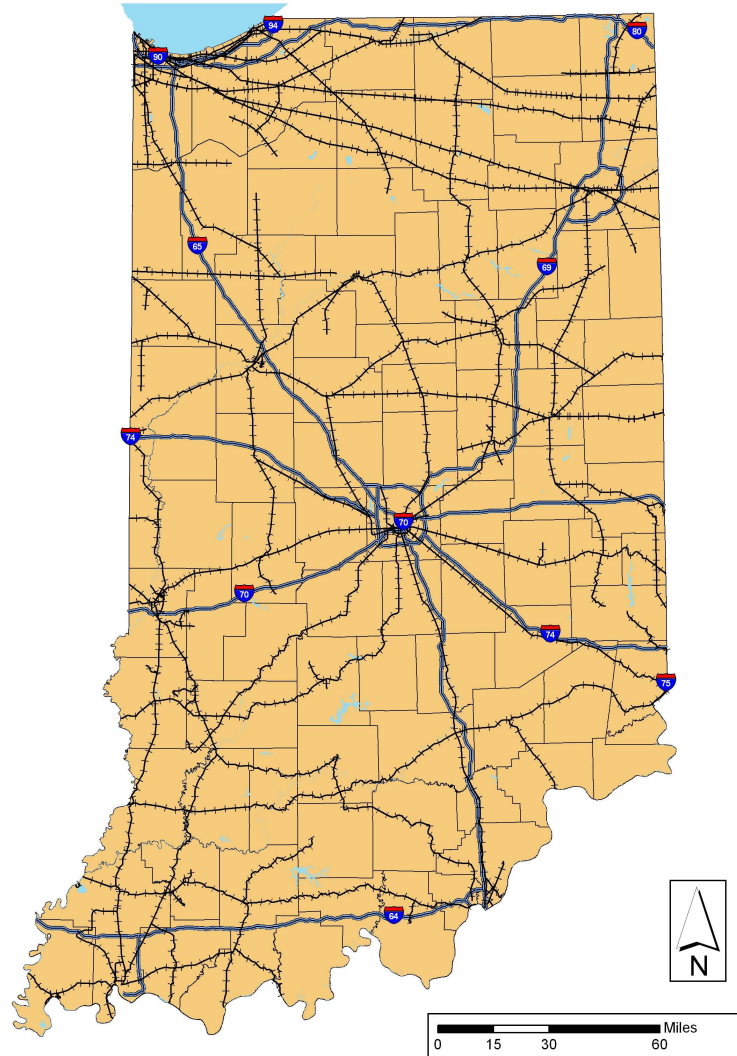


Rail Traffic Current and Future



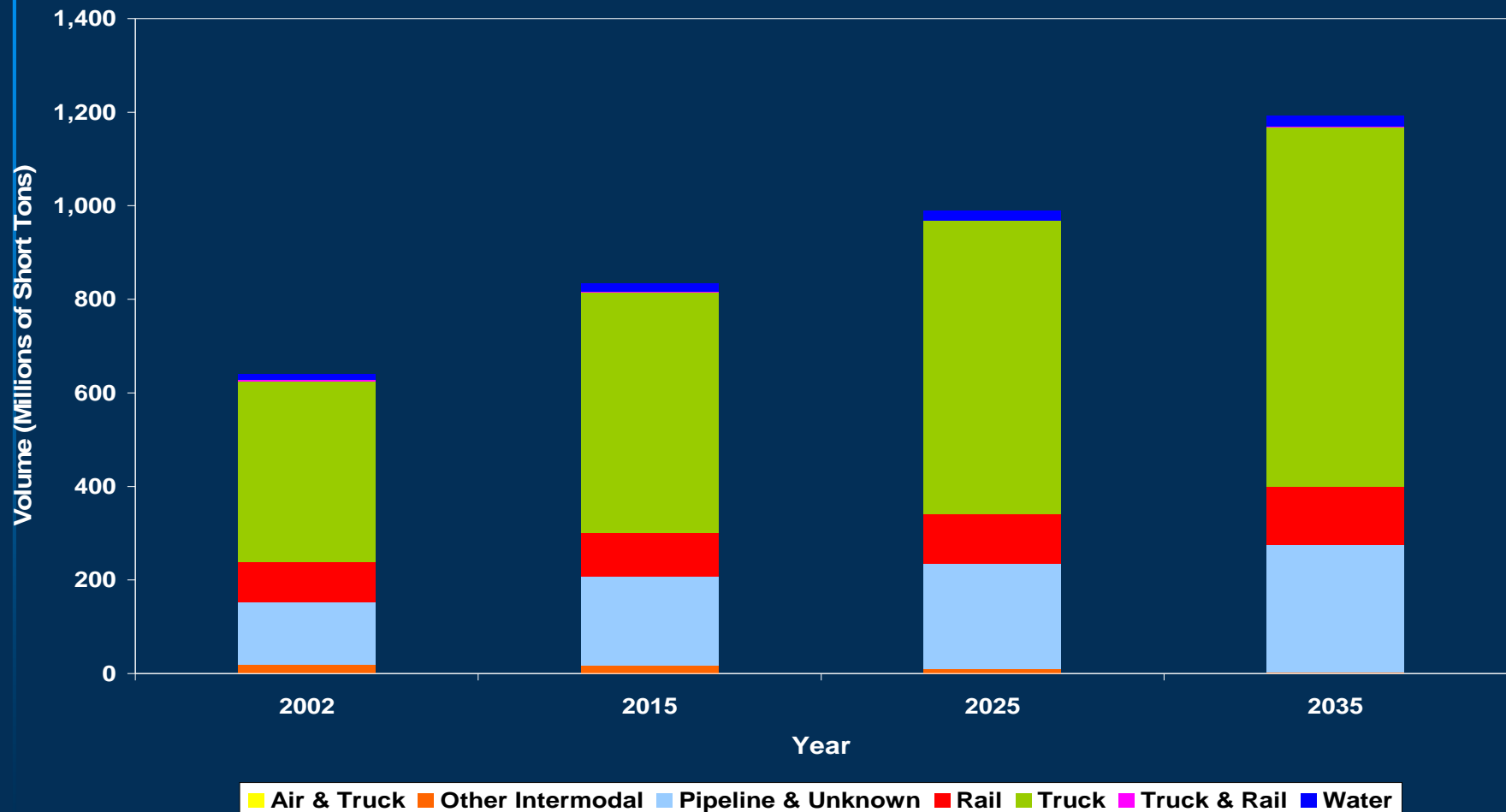
Indiana's Rail Network

40 Freight railroads operating on 4,165 miles. Hauled 298 million tons in 6.8 million railcars. (Source: AAR 2005 data)



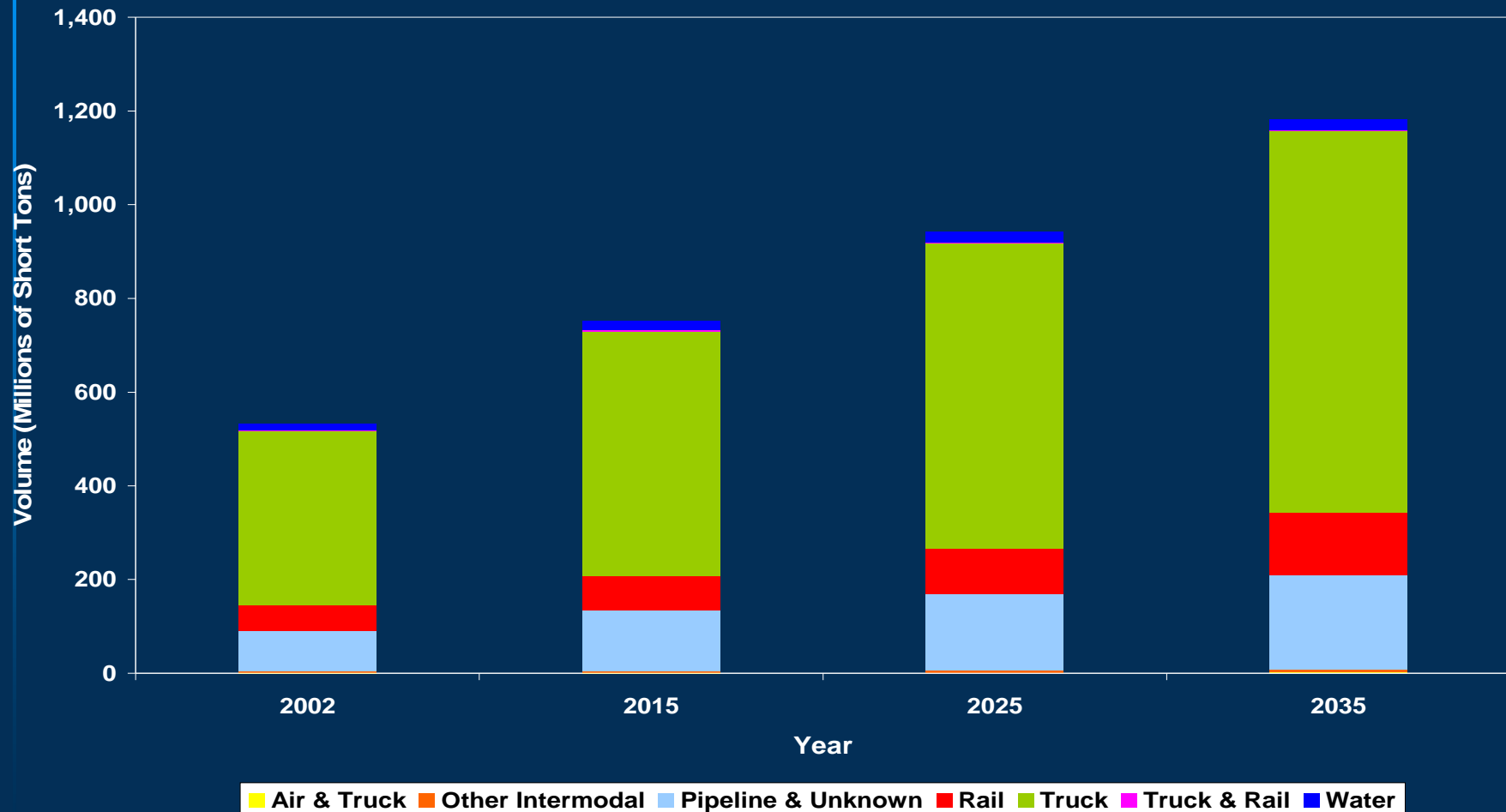
Freight Tonnages by Transportation Mode Inbound to Indiana

Forecast of Freight Terminating in Indiana, 2002 - 2035, by Mode



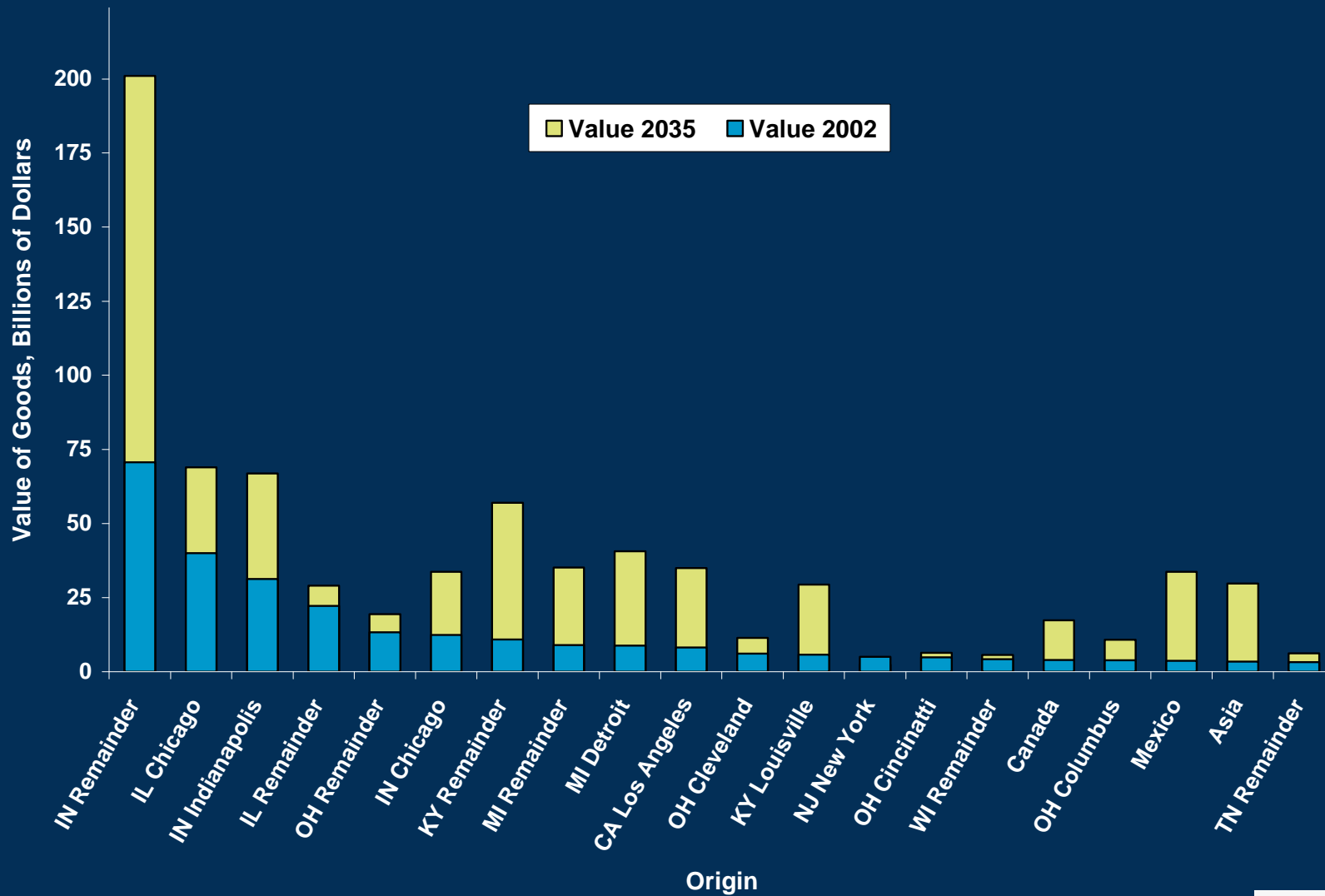
Freight Tonnages by Transportation Mode Outbound from Indiana

Forecast of Freight Originating in Indiana, 2002 - 2035, by Mode



Indiana's Trading Partners

Value of Freight Terminating in Indiana (Top 20 Origins)



Indiana's Trading Partners

Value of Freight Originating in Indiana (Top 20 Destinations)



Indiana Multimodal Freight & Mobility Plan Scope

- Initialize Coordination & Outreach
- Assemble Available Information
- Identify Information Gaps
- Develop Freight Forecasts Through 2030
- Demand: Develop Statewide Freight Transportation, Economic, & Industry Profiles – existing and emerging
- Supply: Profile Freight System Condition and Performance (highway, rail, air, water)

Indiana Multimodal and Freight Mobility Plan Scope

- **Policies & Issues:** Identify existing policies and issues impacting freight mobility
- **Identify Freight Transportation Gaps & Needs** (stakeholder outreach, analytical analysis, and best judgment)
- **Establish Methodology to Evaluate and Prioritize Freight Projects – State, communities, shippers, carriers**
- **Explore Potential Funding Sources**
- **Establish Implementation and Action Plan**

Indiana Multimodal Freight & Mobility Plan

Key Features of Approach

- Focus on multimodal freight mobility, logistics, and economic competitiveness
- Build on prior work, data, and planning tools
- Use best and most recent data available
- Engage stakeholders early and often
- Reflect state of the practice nationally
- Produce action-oriented plan
 - Projects (short- and long-term)
 - Policies
 - Future freight program actions

Where We Are in the Process



- **Initial Outreach**

- Stakeholder Interviews
- Agency Outreach
 - MPOs, Economic Development Agencies, etc.
- Freight Advisory Committee



- **Data Assembly / Profile**

- Highway
- Rail (Freight and Passenger)
- Waterborne
- Air
- Pipeline
- Economic / Demographic / Land use

Indiana Multimodal Freight & Mobility Plan

Stakeholder Engagement

- **Build on existing organizations**
 - Central Indiana Corporate Partnership
 - Northwest Indiana Forum
 - Similar organizations in other regions as needed
- **Targeted outreach to freight carriers and key shippers**
- **Coordination with MPOs**
- **Coordination with other state agencies**
 - Indiana Ports Council
 - IEDC
 - Department of Agriculture

Implementation Plan

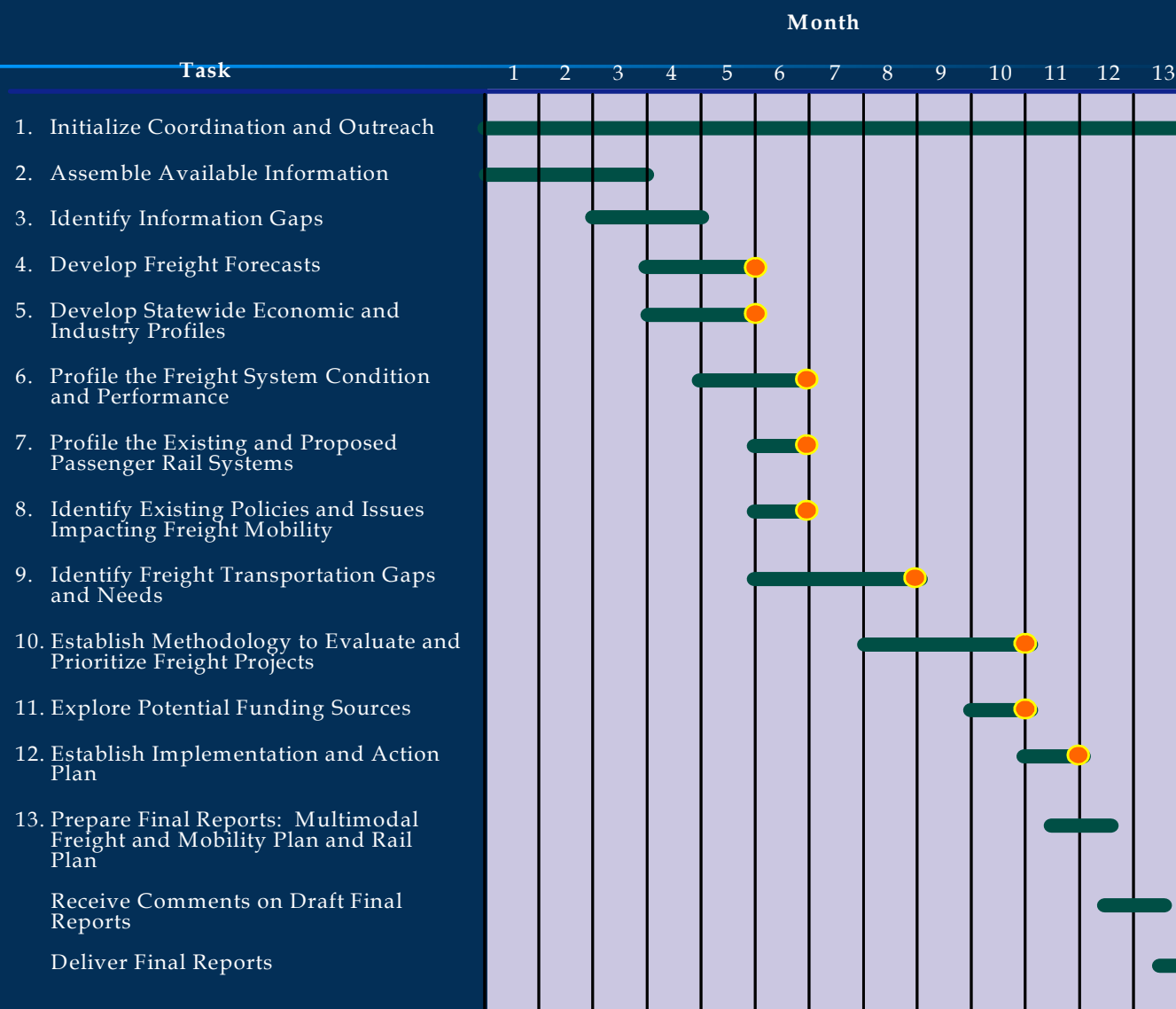
- Example of performance-based criteria for evaluating freight improvements

Criteria	Performance Projection		
	High	Medium	Low
Reduce Travel Times			
Improve Network Reliability			
Improve Safety and Security			
Maintain System Continuity			
Conformity with Goals, Regulations, Standards			
Promote Economic Development			
Improve Environmental Quality			
Quality of Life Preservation			
Etc.			

Next Steps

- **Continue profiling the existing system of freight-supporting infrastructure in Indiana**
- **Understand the needs of current users of the system**
- **Estimate the future needs of current and potential new users**
- **Determine how well the existing infrastructure is serving existing needs and how well it will serve future needs**
- **Identify economic development opportunities related to the enhancement of Indiana's freight-supporting infrastructure**
- **Identify existing and future needs**

Indiana Multimodal Freight and Mobility Plan - Schedule



● Delivery of Technical Memorandum.